



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/693,835	10/24/2003	Mark E. Schommer	1023-285US01	1000
28863	7590	03/31/2006	EXAMINER	
SHUMAKER & SIEFFERT, P. A. 8425 SEASONS PARKWAY SUITE 105 ST. PAUL, MN 55125			GEDEON, BRIAN T	
			ART UNIT	PAPER NUMBER
			3766	

DATE MAILED: 03/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/693,835	Applicant(s) SCHOMMER ET AL.	
	Examiner Brian T. Gedeon	Art Unit 3766	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) 13
Paper No(s)/Mail Date 12/14/05, 9/19/05, 7/5/05, 10/6/04, 7/2/04
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-3, 5, 7, 10, 11, 13-19, 21-24, 27, 30, and 32-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fang et al. (US Patent no. 6,678,563) in view of Nelson et al. (US Patent no. 6,418,346).

In regards to claims 1, 2, 22 and 23, Fang et al. describes a system and method for neuromuscular stimulation involving a hand held programmer/controller 26. The controller 26 has a main circuit board 38 and an auxiliary circuit board 40, col 10 lines 5-9. Figure 4 shows the main circuit board 38 and the auxiliary circuit board 40 mounted in a parallel configuration, with a discernable distance between the two boards caused by the location of an input/output port 112 (shown in figure 3B); the circuit boards 38 and 40 are contained in a housing 25. The main circuit board 38 carries the components for the liquid crystal display 32, and a 900 MHz transceiver with a loop antenna, col 11 lines 53-55, for wireless communication between controller 26 and other compatible devices, col 9 lines 14-17. However, Fang et al. describes the display 32 being mounted to the same circuit board 38 as the transceiver. Nelson et al. describes a programmer 20 for an implantable medical device 10 that has a telemetry transceiver 86 mounted to an antenna driver circuit board 34, col 11 lines 52-55, and a display

Art Unit: 3766

screen on a graphics circuit, col 12 lines 15-18. Therefore it would be obvious to one of ordinary skill in the art at the time the invention was made to use two circuit boards in order to realize different circuit configurations and placement of circuit components to accommodate the handling of one or more function specific controls. Further, it has been held that constructing a formerly integral structure in various elements involves only routine skill in the art. *Nerwin v. Erlienman*, 186 USPQ 177, 179

In regards to claims 3 and 24, one of the circuit boards 38 of Fang et al. has a user control 34, an interface for connection to the other circuit board 40, a microprocessor 36 for controlling the display 32 and 900 MHz telemetry transceiver, col 10 lines 16-32.

In regards to claims 5 and 13, Fang et al. shows the main circuit board 38 containing the liquid crystal display 32 and the microprocessor 36. The microprocessor is equipped with a 900 MHz transceiver that includes a loop antenna, col 11 lines 53-55. Figure 4 shows the microprocessor 36 mounted on the opposite side of the display 32 on the circuit board 32.

In regards to claims 7 and 27, Fang et al. describes circuit boards 38 and 40 being enclosed in a single housing 28. The housing 28 has a front housing shell 44 and a rear housing shell 46, col 9 lines 51-55.

In regards to claims 10 and 30, figure 4 shows the configuration of the circuit boards 38 and 40, the display 32, and the 900 MHz transceiver, which includes a loop antenna, col 11 lines 53-55, as being layered or stacked together.

In regards to claims 11 and 21, Fang et al. substantially describes the claimed invention except for the external antenna wired to the telemetry circuit. Fang et al. does however describe an optical lens 42 connected to the transceiver for wireless transfer of information and wireless linking between other devices via infrared signals. The Examiner holds that the data transformation via infrared signals is an art recognized equivalent to a wired antenna, and therefore obvious.

In regards to claims 14 and 32, the display 32 of Fang et al. is a liquid crystal display, col 9 lines 13-14.

In regards to claims 15 and 33, the display screen 32 of Fang et al. displays various graphic icons that present status of the programmer, e.g. programmer battery life, col 18 lines 25-29.

In regards to claims 16 and 34, the display screen 32 of Fang et al. displays a Task Selection Menu 68 which presents a list of therapeutic programs that the user can select by scrolling through the functions and pushing an "enter" button 56, effectively displaying the status of the medical device used to deliver therapy, col 18 lines 48-67.

In regards to claims 17 and 35, Fang et al. describes the use of an optical lens 42, which allows for infrared communication between the controller 26 and other devices. The lens 42 also makes possible the wireless programming of a medical device, by transferring and storing of firmware in flash memory, which is embedded on the main circuit board 38, col 9 lines 24-50. Signals are processed by a microprocessor 36 that is located on the main circuit board 38.

In regards to claim 18, the controller 26 describes by Fang et al. is equipped with a flash memory device on the main circuit board 38, and stores the firmware for the controller 26. The controller 26 can be loaded with information wirelessly by the infrared optical lens 42 or by direct user input from the keypad 34, col 9 lines 24-50.

In regards to claim 19, the structure outlined in the claims 1 and 22 renders the method claimed as being obvious to one of ordinary skill in the art. The rejection made against claims 1 and 22 is applied to this claim.

2. Claims 4 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fang et al. (US Patent no. 6,678,563) in view of Nelson et al. (US Patent no. 6,418,346) and further in view of Lebel et al. (US 2003/0065308).

Fang et al. in view of Nelson et al. substantially describes the claimed invention except for the control circuitry disabling the display and it's circuitry during telemetry. Lebel et al. discloses a medical programmer having circuitry and a display with display circuitry that is disabled during the activation of the telemetry circuitry, p 26 para 0257. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to disable the display and it's circuitry during telemetry in order to conserve battery power and reduce electrical interference.

3. Claims 6, 8, 9, 26, 28 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fang et al. (US Patent no. 6,678,563) in view of Nelson et al. (US Patent no. 6,418,346) and further in view of Stein et al. (US 2004/0230246).

In regards to claims 6 and 26, Fang et al. in view of Nelson et al. substantially describe the claimed invention except for the internal antenna defining an aperture for a

Art Unit: 3766

battery bay. Although Stein does not expressly disclose that the battery bay extends into the aperture formed by antenna coil 66, it is evident from Figure 9 that when the patient programmer 10 is fully assembled, the battery bay extends at least partially into the aperture formed by antenna coil 66. When assembled, antenna coil 66 abuts circuit board 68. The placement of batteries 76 in battery contacts 77 within circuit board 68 will cause the battery bay to extend at least partially into the aperture formed by antenna coil 66. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to place the batteries.

In regards to claims 8, 9, 28, and 29, Fang et al in view of Nelson et al. substantially describe the invention as claimed except for the description of the battery bay. Stein et al. discloses the invention essentially as claimed, including first and second housing members and a first circuit board disposed between the two members. There is an access opening 86 in the first housing member 78 to gain access to the battery bay (see Figure 9). Additionally, the internal antenna 66 of Stein et al. is displaced from the first circuit board and coupled to the first circuit board via an antenna measurement as seen in Figure 9. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a molded battery bay comprising an opening in the housing in order to provide for easy access to battery for replacement.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the

Art Unit: 3766

unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 1-6, 10, 11, 13, 14, 18, 20-30, 32 and 35 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 4-7, 9, 11, 20, 21, 23, 25-35, and 44 of copending Application No. 10/693,007. Although the conflicting claims are not identical, they are not patentably distinct from each other because both applications claim a medical device programmer with a telemetry unit mounted on one separate circuit board and a display mounted on another and both include structure for mounting batteries within an aperture formed within the antenna.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

5. Claims 1, 6, 8, 9, 22, 26, 34 and 35 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 9,

Art Unit: 3766

10, 11, 19 and 20 of copending Application No. 10/693,011. Although the conflicting claims are not identical, they are not patentably distinct from each other because both applications claim a medical device programmer with a telemetry unit mounted on one separate circuit board and a display mounted on another and both include structure for mounting batteries within an aperture formed within the antenna.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian T. Gedeon whose telephone number is (571) 272 3447. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert E. Pezzuto can be reached on (571) 272 6996. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3766

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Robert E. Pezzuto
Supervisory Patent Examiner
Art Unit 3766

BTG